

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1x.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012839**Date Inspected:** 25-Mar-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1200**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Tom Pasqualone**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Sections**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above.

This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and to monitor various welding operations.

The following observations were made:

- 1) Repairs were being performed to welds E2/E3-A1 and A5; welding personnel Mitch Sittinger was performing the welding with Quality Control Inspector Tom Pasqualone present.
- 2) Quality Control Inspector Jim Cunningham was observed performing Ultrasonic Testing (UT) on weld E2/E3-F and later informed this QA Inspector the weld was accepted.
- 3) ABF personnel were performing welder qualification testing with Quality Control Inspector Mike Johnson present.
- 4) ABF personnel were in the process of removing the rust from weld joint E3/E4-A1 thru 5 with power wire brushes.

This QA Inspector randomly observed QC Inspector Tom Pasqualone monitoring the welding of repairs to weld E2/E3-A1 and A5. This QA Inspector observed welding personnel Mitch Sittinger # 0315 using the Shielded Metal Arc Welding (SMAW) process for the repair welding. The QA Inspector observed QC Inspector Tom Pasqualone verify the SMAW parameters as 130 amperes using a 3.2 mm diameter electrode. The QA Inspector randomly observed as QC Inspector Tom Pasqualone verified the temperature of base material was preheated to a temperature greater than 150 degrees F prior to welding but less than the maximum interpass temperature of 400 degrees F during welding using a temperature indicating marker. The work observed appeared to comply with

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

Welding Procedure Specification (WPS) ABF-WPS-D15-1000-Repair. This QA Inspector observed the repair welding performed at E2/E3-A1 required the use of run-off tabs to facilitate welding. Please see photo below of the run-off tabs used at this location for repair welding. During repair welding this date at approximately 1300 hours the QA Inspector observed a slight rain shower started. The QA Inspector observed welding personnel Mitch Sittering #0315 stopped welding and covered the work area with large piece of dry plywood. After several minutes the rain shower stopped. The QA Inspector observed the following; ABF personnel removed the plywood covering the work area and surrounding deck appeared to be dry, a torch was being used to apply preheat prior to resuming any welding. The actions taken appeared to comply with the contract requirements.

This QA Inspector observed various ABF personnel using power wire brushes to clean the weld joint and previously deposited weld metal at weld joint E3/E4-A-1 thru A-5. Earlier this date a slight rain shower had occurred while this weld joint was not protected from the elements. The QA Inspector observed that as sections were cleaned a protective covering consisting of a wide tape was placed over the weld area to help protect it from the weather. This QA Inspector also observed that ABF personnel were not working at weld joint W1/W2-A1 thru 5 and that this weld joint had also been tapped to protect it from the weather.

This QA Inspector observed QC Inspector Bernard Docena was present at weld joint E1/E2-D with ABF welding personnel Rory Hogan #3186 and Jeremy Dolmad #5042. The QA Inspector had previously been informed by QA Inspector Rick Bettencourt the welding personnel at this location had been having issues with porosity entering the weld metal. The QA Inspector was present this afternoon during welding and observed the issue with porosity in the weld had continued to be a problem. Approximately 300 mm of Flux Cored Arc Welding (FCAW) was performed in the overhead position. It appeared the entire length (300 mm) contained a large amount of porosity. This QA Inspector was present when ABF welding personnel Dan Ieraci #3232 confirmed the following with welding personnel Rory Hogan #3186 and Jeremy Dolmad #5042: The filler metal had been replaced with a new roll of wire, it had been verified the shielding gas lines were free of any kinks/obstructions that would prevent gas flow, the control cable from the wire feed unit "whip" had been replaced and the proper amount of flow was present at the welding touch. Dan Ieraci stated the next step should be to replace the current gas cylinder with a new cylinder and replace the current wire feed unit with a new one. The QA Inspector did not observe any further welding at this location this date.



Summary of Conversations:

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

Inspected By:	Hager,Craig
----------------------	-------------

Quality Assurance Inspector

Reviewed By:	Levell,Bill
---------------------	-------------

QA Reviewer
